

Национальный исследовательский Мордовский государственный университет имени Н. П. Огарёва



REPORT

ON EXTERNAL REVIEW

of the cluster of educational programmes:

«Biotechnology» (19.03.01, 19.04.01)

delivered by National Research Ogarev Mordovia State University

Saransk, 2019

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The Chair of the Review Panel

And Bhin Axel Blokesch

Saransk, 2019

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External review of the cluster of educational programmes «Biotechnology» (19.03.01, 19.04.01) delivered by National Research Ogarev Mordovia State University (hereinafter Mordovia State University) was conducted on December 17-19, 2019 and included the analysis of self-evaluation report, site visit and preparation of the present report.

The main goal of the external review is to determine the correspondence of the reviewed cluster of educational programmes «Biotechnology» (19.03.01, 19.04.01) delivered by National Research Ogarev Mordovia State University to standards and criteria of public accreditation, which are developed by the National Centre for Public Accreditation (hereinafter - NCPA) and determined in compliance with the European Standards of Quality Assurance in Education ESG-ENQA.

The Final Report is the reason for decision of the National Accreditation Board on public accreditation of the study programmes in compliance with standards and criteria of NCPA.

1. CONTEXT AND MAIN STAGES OF THE REVIEW

1.1 Terms of Reference

According to item 1, 3 article 96 of the Federal Law of the Russian Federation of December 29, 2013 N.273-FZ "On Education in the Russian Federation" organizations, which carry out educational activities, may apply for public accreditation in various national, foreign and international institutions; employers, employer associations and designated organizations have the right to conduct public accreditation of professional educational programmes, which are delivered by an educational institution.

In order to conduct public accreditation of the cluster of educational programmes «Biotechnology» (19.03.01, 19.04.01) Mordovia State University applied to NCPA, which operates on the national level and is recognized by leading international organizations of quality assurance in higher education.

1.2 Composition of the Review Panel

The international expert was nominated by a foreign quality assurance agency upon NCPA's request.

The Russian experts were nominated by the Guild of Experts in Higher Education.

The employer representative was nominated by LLC Saranskiy Distillery.

The representative of the students' community was suggested by Evseviev Mordovia State Pedagogical Institute.

The composition of the External Review Panel was approved by NCPA. The Review Panel included five international and national experts:

 Axel Blokesch - Dr., Professor, Department of Biotechnology, Faculty of Computer Science and Engineering, Frankfurt University of Applied Sciences, member of the German Federation for Protection of Environment and Nature (BUND) and the German Chemical Society (GDCh) — Review Chair, foreign expert;

- Olga Larionova Doctor of Biology, Associate Professor, Head of the Department of Microbiology, Biotechnology and Chemistry, Vavilov Saratov State Agrarian University, member of the Interregional Russian Microbiological Society, expert of the Skolkovo Foundation in the field «Biotechnologies in Agriculture and Industrial Biotechnology», Chair of the Expert Committee of semifinal sessions of the Foundation for Assistance to Small Innovative Enterprises in Science and Technology U.M.N.I.K, member of the expert committee for the Rector's grant of Vavilov Saratov State Agrarian University — Deputy Review Chair, Russian expert;
- Evgenia Sorokataia Candidate of Biology, Associate Professor, Vice-Rector for Academic Affairs, Krasnoyarsk State Agrarian University, member of the Guild of Experts in Higher Education, member of the Russian non-governmental organization «Ovchinnikov Society of Russian Biotechnologists» — Panel member, Russian expert;
- **Tatiana Veretekhina** Chief Technologist, LLC Saranskiy Distillery Panel member, representative of professional community;
- **Olga Kurochkina** 5th year student, Evseviev Mordovia State Pedagogical Institute Panel member, representative of students;

The focused expert knowledge of the Panel members, long-term experience of working in the system of higher education and profession, active position of students and employers became the basis for effective consideration of issues within the framework of evaluation.

The participation of the Russian representatives of the higher education system gave an opportunity to analyze the activity of the programmes under evaluation in the context of the world trends in quality assurance and within the scope of the national educational system.

1.3 Purposes and objectives of the review

The purpose of the public accreditation is improving quality of education and forming quality culture in educational institutions, discovering best practices in continuous enhancing the educational quality and public information on educational institutions in accordance with the European educational quality standards.

The main goal of the peer review is to determine the correspondence of the reviewed cluster of educational programmes «Biotechnology» (19.03.01, 19.04.01) delivered by National Research Ogarev Mordovia State University to standards and criteria of public accreditation, which are developed by NCPA and determined in compliance with the European Standards of Quality Assurance in Education ESG-ENQA; and to develop recommendations for the study programme with the purpose of improving the contents and structure of the educational process.

1.4 Stages of the review

The review included three main stages:

1.4.1 Study of the self-evaluation report

Mordovia State University was responsible for conducting the selfevaluation procedure, developing and timely submitting of the self-evaluation report to NCPA.

According to the "Guidelines on Self-evaluation of Educational Programmes", which were developed by NCPA, the self-evaluation report is written on 33 pages and includes: introduction, findings, conclusions, annexes. The self-evaluation procedure was conducted on the basis of SWOT-analysis according to every standard of NCPA.

According to the review schedule, the self-evaluation report of the cluster of educational programmes «Biotechnology» (19.03.01, 19.04.01) was submitted to NCPA and mailed to the members of the review panel 30 days before the site-visit.

While studying the self-evaluation report the panel members formed a preliminary opinion about the reviewed educational programmes on compliance with the NCPA standards and criteria on accreditation and with the European standards of education quality.

The members of the review panel assessed the quality of preparation of the self-evaluation report with regards to its text structuring, compliance of information with the report's sections; quality of perception; sufficiency of analytical data; availability of references to supporting documents; completeness of information. It provided the experts with an opportunity to form a preliminary opinion.

Due to the results of the panel's preliminary work, the following conclusions were made: the presented documents, reports, and suggestions correspond to the requirements of public accreditation. The report includes general information on the cluster of educational programmes, and analysis of fulfilling the requirements in compliance with the standards and criteria of ESG-ENQA. The following issues should be clarified: taking into account the requirements of professional standards, forms of cooperation with employers, number of postgraduate students, Moodle platform and availability of materials for the students.

According to NCPA's standards and criteria of accreditation the preliminary assessment of the cluster of educational programmes «Biotechnology» (19.03.01, 19.04.01) may be defined as full compliance.

Issues, which need detailed analysis:

What are the perspectives of the University development and what criteria indicators will be achieved?

Does the University cooperate with the regional Ministry of Education on encouraging talented young people to enroll at the educational institution?

What incentives for improving teachers' activities are used at the University?

Will the new educational programmes be licensed?

At the preliminary meeting members of the review panel formulated the lines of inquiry, which defined the main strategy of the site-visit.

1.4.2 Site-visit

The review panel visited Mordovia State University on December 17-19, 2019 with the purpose of confirming the authenticity of the information, which was presented in the self-evaluation report, collecting extra information on the delivery of the accredited programmes and checking their compliance with the standards and criteria of NCPA developed in accordance with the European standards of education quality assurance.

The time line and the agenda of the site-visit were determined by NCPA, and approved by the administration of Mordovia State University and the members of the review panel.

During the site-visit the review board members conducted a number of meetings and interviews with the University administration, Dean of the Faculty of Biotechnology and Biology, Heads of Departments, teachers, students, graduates, and employers.

The Chair of the review panel managed the panel's work.

The Panel members visited the following laboratory classes: Physical and Chemical Methods of Analysis (teacher – I. Suisin), Foundations of Biotechnology (E. Mokshin), Structural and Functional Body Structure (M. Tayrova), Nanobiotechnologies (V. Shutova), German Language (T. Vladimirova), Modern Issues of Fundamental Biotechnology (E. Mokshin).

The panel visited classrooms, the laboratory of nanotechnologies; fermenting technologies; biophysics; testing laboratory of biocomposites; biopreparations; cell biochemistry; fundamental biotechnology and bioengineering; Centre of Distance Technologies, Bakhtin Museum, and Volunteer Centre.

The panel considers that the self-evaluation report, which was presented by Mordovia State University, provided the experts with an opportunity to form an integral view on specific features of delivery of the cluster of educational programmes «Biotechnology» (19.03.01, 19.04.01).

The studied documents and the interviewed persons, visits to the laboratories, classrooms, library, computer classes allowed the panel to make the scale of assessment parameters of the study programmes.

The review panel considers it necessary to highlight the effective cooperation of the experts and NCPA employees during the site-visit and its preparation.

The review panel notes the highest level of organizational provision and constructive work.

The executive staff of Mordovia State University provided the administrative support, which included arrangement of meetings and interviews, provision with working space, computers with an access to the Internet, necessary research, academic and methodological documents.

During the site-visit the review panel members requested additional documents.

On the last day of the site-visit the Chair of the review panel presented an oral report on the general conclusions to the executive staff of the University, Institute Directors, teachers and students.

The agenda of the site-visit can be found in the Annex.

1.4.3 Conclusion on the findings of the external review

Based on the results of the external review of National Research Ogarev Mordovia State University the review panel submitted the Report on the results of the external review of the cluster of educational programmes «Biotechnology» (19.03.01, 19.04.01) delivered by the educational institution.

The draft report of 35 pages excluding Annexes was developed by the Chair of the Review Panel, approved by other Review panel members and submitted to the National Centre for Public Accreditation. Then the Report was mailed to the University's administration for making factual amendments.

2. DESCRIPTION OF THE STUDY PROGRAMMES

The cluster of educational programmes «Biotechnology» (19.03.01, 19.04.01) is delivered at the Faculty of Biotechnology and Biology by the Department of Biotechnology, Bioengineering and Biochemistry.

The mission of the Faculty is carrying out educational, research, social and cultural activities on preparing highly-qualified experts in biological sciences (including biotechnologies), having fundamental knowledge, skills of conducting experiments and professional skills; it complies with the quality policy and development strategy of the University on the whole.

The Department has several laboratories: laboratory of biophysics, laboratory of industrial microbiology, laboratory of spectral analysis, laboratory of chromatographic analysis, laboratory of sedimentation. The Department is provided with the modern equipment: bioreactors, gas and liquid chromatographs, spectrophotometers, fluorimeters, etc.

The teaching staff is the main source of delivering the educational programmes. There are 2 regular Doctors of Sciences, 1 part-time Doctor of Sciences, 13 regular Candidate of Sciences, 2 part-time Candidates of Sciences, and 3 teachers without degrees. Some teachers are members of Russian and international research communities, they have awards and titles.

Over the period of the existence of the Faculty in the present form, from May 7, 2014 till present, 2 theses for a Doctor's degree and 17 theses for a Candidate's degree were defended; more than 250 research articles were published, more than 35 patents were received. The staff published a great number of educational and methodological books.

For the last years the following editions were published: a coursebook and study guides with a stamp of the educational and methodological association - «Biophysics», «Laboratory Course on Biotechnology», «Biophysics and Physiology of Excitable Membranes», «General Biotechnology», etc. The regional branch of the Russian Society of Biotechnologists, the Interregional Society of Microbiologists and the Moscow Society of Naturalists was opened on the basis of the Department of Biotechnology, Bioengineering and Biochemistry.

The Faculty comprises 4 departments, Biostation, Botanic garden, Museum of Biology, the Centre of Biotechnology, 2 research and educational centres «Nanobiotechnologies» and «DNA-diagnostics and Genome Research», which work on its basis, 2 small innovative enterprises (LLC Biozaschita and LLC Genologia-MSU) for commercialization of the developments in the sphere of research and development.

The topics of research are referred to biotechnology and are aimed at meeting the demands of the Republic of Mordovia and other regions. The main

areas of research are biotechnology of composites; biotechnology of glue materials of biological origin; production of bioethanol of food and industrialuse; feed protein production with the help of basidiomycetes; production of biopreparations for protection of plants from the phytopathogen; medical and preventive food technology; production of microbic polysaccharides: xanthan and dextran; production of feed and probiotic preparations; physical and chemical and molecular mechanisms of apoptosis.

One of the important elements of the Department's development is establishing and maintaining international links with leading foreign HEIs on the basis of cooperation agreements: Abertay University (Scotland, Great Britain), Bartin University (Turkey), Baku University (Azerbaijan), State University of Novi Pazar (Serbia).

The Department has participated in grant activities in the period of 2014-2019. The work on 12 grants has been carried out and contract-based research for a total amount of more than 80 million rubles has been conducted. During that period more than 100 research works were published, and more than 40 of them were published in the journals of Web of Science and Scopus. 17 process patents were received.

The graduates work in research institutions and centres and as biotechnology engineers at processing enterprises of food and microbiological industry, at the enterprises on production of medicinal preparations, for example, PJSC «Biokhimik», Dairy Plant «Saranskii», PJSC «Bisintez», PJSC «Khlebozavod», PJSC «MordovAlkoProm», PJSC «SanInBev», farm firm «Oktiabrskaia», agricultural holding «Talina», meat-processing factory «Cherkizovkii», meat-processing factory «Mikoianovskii», and at other enterprises and research centres of Russia, Europe and America.

3. FINDINGS

3.1 Standard 1. Policy (goals, development strategy) and quality assurance procedures of a study programme

Compliance with the standard: Full compliance

Table 1 - Criteria to Standard 1

N⁰	Subject of Evaluation	
1.	Availability of a documented inner quality assurance system providing continuous enhancement of quality in accordance with the developmental strategy of the educational institution	
2.	Participation of all stakeholders (administration, teaching staff, students, employers, employer associations, branch ministries and departments – key partners in employment of graduates) in developing and implementing a quality assurance policy through relevant structures and processes	
3.	Participation of all structural units of an educational institution in quality assurance processes and procedures	A

Analysis of the educational programmes' compliance with the standard:

The documented internal quality assurance system providing continuous improvement of quality in compliance with the University development strategy is in place. The University has developed the quality management system in compliance with the requirements of MS ISO 9001:2015 and GOST P ISO 9001-2015 for effective implementation of the development programme. The documents on the quality management system and educational and methodological activities are published on the University website. The quality policy is in compliance with the Regulations on quality.

The External Review Panel held meetings with the University management, teaching staff, students, employers and graduates on the issues of education quality assurance.

The Panel also reviewed internal documents regulating the education quality assurance policy. The University uses a process approach; the documents are developed with the account of the analysis of the requirements of the market and the Federal State Educational Standard. The University administration, teaching staff and employers are involved in the development and introduction of the education quality assurance policy.

The feedback from students and graduates is used to provide the stable quality assurance system.

The reviewed documents showed that all University subdivisions are involved in the procedures of education quality assurance, which are coordinated by the Department of Education Quality.

Achievements:

The Department of Education Quality Management works at Mordovia State University

The University has a transparent system of monitoring of the results of subdivisions' activities: staff, educational activities, research, international activities, financial and economic activities.

The Moodle platform where all stakeholders cooperate is used at the University.

The policy of the quality assurance system is published on the website, including the English version.

The analysis of the market requirements is conducted in order to train specialists in demand, in particular, meetings of the Dean with employers are held. As a result of these meetings, the perspectives and problems of the educational programmes development are defined, and the system of work placement is improved.

Recommendations:

The University should enhance cooperation with the regional subjectspecific ministries and institutions.

3.2 Standard 2. Design and approval of programmes

Compliance with the standard: Full compliance

Table 2 - Criteria to Standard 2

N⁰	Subject of Evaluation		
1.	Availability and accessibility of clearly defined, documented, approved and published goals and objectives of a study programme and expected learning outcomes and their correspondence to the mission and goals and objectives of the educational institution		
2.	Availability of procedures for design, approval and revision of a study programme (including expected learning outcomes) with the account of the development of science and industry, and also with the consideration of stakeholder opinions (administration, teaching staff, students, employers)		
3.	Consideration of the requirements of professional standards (if available), of labour market, of national qualification framework descriptors in the study programme	A	

Analysis of the educational programmes' compliance with the standard:

The documents and the content of the educational programmes under review are in full compliance with the Federal State Educational Standard (FSES), in particular, with the requirements to the content of the programme, its purposes, learning outcomes and professional competences.

The procedures for the development, approval and adjustment of the educational programmes, including expected learning outcomes, are in compliance with the Federal State Educational Standard and recommendations of the Ministry of Science and Higher Education of the Russian Federation.

The procedures of independent assessment of the qualification, in which employers evaluate professional competences of graduating students allow the enterprises to select the best graduates and to reduce timing budget and financial resources aimed at training and prospective adaptation of the staff. The Dean holds meetings with employers to determine market demands when training students. The students develop research competences when writing course works, Bachelor and Master theses, participating in research under the supervision of teachers, and undergoing practical training.

Achievements:

The University develops own educational standards; takes into account the requirements of the professional standard in training of highly-qualified experts.

The goals and learning outcomes are available in the electronic informational and educational environment.

The University has official mechanisms of approval, periodical review and monitoring of the educational programmes and qualifications.

The University has a wide range of work placement facilities in the region.

The students and graduates are highly motivated; the employability rate is high.

Recommendations:

When approving the subject-specific standards, it is recommended to review the educational programmes on account of these standards. The University should continue using the descriptors of the national qualification framework when further delivering the educational programmes at Bachelor and Master levels. The possibilities of adjusting the educational programmes should be discussed, especially with cheese-making employers.

The University should introduce two new courses in the Bachelor programme:

1. the discipline on the legal framework of biotechnological processes

2. a course on standardization and certification (QMS).

3.3 Standard 3. Student-centred learning, teaching and assessment

Compliance with the standard: Full compliance

Table 3 - Criteria to Standard 3

N⁰	Subject of Evaluation			
1.	Consideration of needs of diverse groups of students and a possibility to create individual learning paths			
2.	Use of methods encouraging students to take an active part in creating the learning process			
3.	Use of clearly defined criteria and objective assessment procedures of learning outcomes/ competences of students corresponding to the expected learning outcomes, goals of the study programme and their purpose (diagnostic, formative or summative assessment)			
4.	Information about the study programme, criteria and procedures for assessment of learning outcomes/competencies, about examinations, tests and other types of control	A		
5.	Use of procedures of independent assessment of learning outcomes	А		
6.	Availability and effectiveness of appeals procedure and procedures for dealing with students complaints			

Analysis of the educational programmes' compliance with the standard:

The documented system on the account of the requirements of different groups of students is in place. However, insufficient attention is paid to people with disabilities and handicapped persons, while the adaptation disciplines for these student groups are presented in the curriculum. It is necessary to create special conditions for training and work with these people.

The External Review Panel evaluated the student-centred learning environment and concluded that the University created and continuously develops the student-oriented educational and social and cultural environment. The issues of its improvement are discussed at the meetings of the Academic Council of the Faculty and the University, meetings of the Departments, and the United Council of Students.

The opinions of students and postgraduate students are taken into account when making curricula and working programmes of disciplines (elective courses, work placement facilities, topics of research works and graduation theses are defined every year). The students are members of the Faculty Academic Council; they can participate in the discussion of issues related to improvement of the educational programmes. The students have a possibility to choose the profile of training from the second year of training for in-depth study of the subject-specific disciplines. The methods promoting students to participate in the joint design of the educational process are used.

The External Review Panel examined all issues related to the use of the criteria and objective procedures of evaluation of learning outcomes/student competences corresponding to the expected learning outcomes and purposes of the educational programme. The system of evaluation of learning outcomes includes all evaluation procedures, which are in compliance with the Federal State Educational Standard; the system is documented and fully corresponds to the procedures of organization of the educational process at the University.

The meeting with students showed that all students are informed about the educational programme, applied criteria and procedures of evaluation of learning outcomes/competences, exams, and other forms of control. The information on all educational programmes is available on the University website.

All documents regulating the educational process, current, interim and final assessment are published on the University website. The Dean's Office, supervisors and teachers inform the students about the educational process. The independent evaluation of learning outcomes is carried out with the help of the Federal Internet Exam in Higher Education.

The University regularly works with student complaints and appeals. The Committee on settling disputes between stakeholders and the Appeals Committee work at the University.

Achievements:

The information on evaluation procedures and students' academic progress is available in the electronic informational and educational environment.

The educational programme 19.03.01 Biotechnology is among the 'Best Educational Programmes of Innovative Russia' for 2011-2012.

The students are involved in independent evaluation of learning outcomes.

The scientific achievements are effectively used in the educational process. Most students carry out research and grant activities starting from their second year of Bachelor study.

Recommendations:

Individual learning paths should be made available for talented students in order to allow them to effectively learn the educational programme, do research and work.

During the meeting with the students it was noted that they want to improve their English language proficiency and to have a possibility of learning it from the Beginner level (for students who have learnt German at school instead).

3.4 Standard 4. Student admission, support of academic achievements and graduation

Compliance with the standard: Full compliance

Table 4 - Criteria to Standard 4

N⁰	Subject of Evaluation		
1.	Systematic carrier guidance work targeted at the recruiting and selection of applicants should be in place		
2.	Availability and effectiveness of rules and regulations for admission, transfer of students from other educational institutions, recognition of qualifications, periods of study and prior learning		
3.	Systematic work to support students' progression		
4.	Recognition of higher education qualifications obtained in the RF and abroad (Diploma Supplement)	В	
5.	Participation of students in mobility programmes	В	

Analysis of the educational programmes' compliance with the standard:

The career-guidance work is carried out at the University and is aimed at preparing and selecting applicants.

The University has documented rules and procedures on admission of students from other educational institutions, recognition of qualifications, training periods and previous education, including, the Regulations on transfer of students from other faculties and educational institutions.

As a result of the meetings, the Panel concluded that the University has internal regulatory documents; the Faculty administration, supervisor of the educational programmes and the Academic Council support academic progress of students.

The graduates can receive the Diploma Supplement on demand, however, the students are not well informed about the procedure to apply for it. The academic mobility programmes are not sufficiently carried out at the University. One of the reasons is insufficient English language proficiency of the students.

Achievements:

The University carries out the career-guidance work: holds workshops, uses social media, holds the University Olympiad on Biology, School of a Young

Biologist, open lectures for school students, different events oriented at attracting applicants from other regions and countries.

The University carries out regular work on support of students' academic mobility.

High percentage of students doing research, participating in grant competitions, conferences, other competitions and participating as inventors in granted patents.

The students participate in different Olympiads and competitions, and are winners of national conferences.

Recommendations:

The University should give the Diploma supplement to all students in order to ensure recognition of the documents abroad.

The student mobility should be enhanced; the conditions for improving their language proficiency in English, and if desired in other languages, should be improved (introducing additional courses of the English and other languages, holding round tables, tea parties with English-speaking students, etc.).

In addition, the possibility of learning other foreign languages – like currently German - should be strongly supported in order to improve competitiveness of the graduates on the labour market.

3.5 Standard 5. Teaching staff

Compliance with the standard: Full compliance

Table 5 - Criteria to Standard 5

N⁰	Subject of Evaluation	Mark
1.	 Qualification and competence of the teaching staff : Academic degrees and titles; Industry and state awards and prizes; Practical experience; Published text books, handbooks and methodological guidebooks 	
2.	Relevance of specialists, degrees and titles and /or practical experience to the profile of the study programme	А
3.	Research activity of the teaching staff, implementation of research results in the academic process	
4.	Use of innovative teaching methods and advanced technologies	
5.	Visiting lecturers from other educational institutions including those from abroad	
6.	Participation of the teachers in joint international projects, internships abroad, academic mobility programmes	
7.	A system of financial and non-financial incentives for teachers	А
8.	 Availability and use of clear, transparent and objective criteria for: Hiring staff including teachers from foreign educational institutions, assignment to positions, promotion, dismissal; Dismissal of teachers with low level of professional competency 	
9.	A system for career development and professional advancement for teachers	А

Analysis of the educational programmes' compliance with the standard:

The teaching staff has a highly qualified education corresponding to the training profile and to the requirements of the Unified Guide of Qualifications.

The requirements to the teaching staff are presented in the labour contracts, job instructions and individual plans.

The academic degree holders rate is 85%. Some teachers are members of the Russian and international research communities, they have awards and titles. For example, V. Revin as Dean of the Faculty is an Honoured Scientist of the Mordovia Republic and the Russian Federation, advisor of the Russian Academy of Architecture and Construction Sciences, holder of the award of the Head of the Mordovia Republic and a winner of the state award of the Republic of Mordovia. He is a Head of the Mordovia regional branch of the Russian Society of Biotechnologists. V. Revin is a member of the Presidium of Federal Educational and Methodological Association for Biological and Biotechnological Education. Since 2014 he is a member of the executive committee of the European Biotechnology Thematic Network Association (EBTNA).

More that 70% of the teachers are members of the national and international research organizations (Moscow Society of Naturalists (Biophysics section), Russian Society of Biotechnologists, Russian Society of Microbiologists).

The educational process is fully provided with lecture manuals and study guides. In the period of 2014-2019 11 lecture manuals and study guides were published. In 2015 the coursebook «Obschaia Biotekhnologiia» (General Biotechnology), 2nd edition, received the diploma at the VII Russian competition of the publications for HEIs «Universitetskaia Kniga – 2015» in the nomination «The Best Publication in Natural Sciences». In 2018 the electronic educational and methodological complex «Biochemistry» was ranked 2nd at the University competition for the best electronic study guide in natural sciences. Bakterialnykh The studv auide «Biotekhnologiia **Ekzopolisakharidov**» (Biotechnology of Bacterial Exopolysaccharides) became the winner of the VII Privolzhskii competition of the publications for HEIs « Universitetskaia Kniga – 2019» in the nomination «The Best Study Guide in Medical Sciences».

The teachers are authors and co-authors of the articles published in the journals and collections of conference materials of RSCI, Scopus, and Web of Science.

All teachers delivering the cluster of educational programmes have a highly qualified education, academic degrees and work experience corresponding to the profile of the discipline (module) they teach and the requirements of the Federal State Educational Standard of Higher Education.

In the period of 2014-2019 the work on 12 grants has been carried out and contract-based research for a total amount of more than 80 million rubles has been conducted. During that period more than 100 research works were published, and more than 40 of them were published in the journals of Web of Science and Scopus.

17 process patents were granted. The results of research are widely used in the educational process when designing curricula and programmes and developing educational and methodological materials and study guides. The students are actively involved in research activities. Almost all senior students are involved in project activities. The educational methods and innovative pedagogical technologies (brainstorming sessions, debates, seminars, discussions, business games, projects) are used in the educational process.

The Panel notes that the Department involves teachers from other educational institutions, including foreign ones (incomings).

The mobility of teachers (outgoings) and their English language proficiency, however, still need to be considerably improved.

The system of financial and non-financial incentives for teachers is based on the developed and approved regulatory documents. The teachers receive these incentives for the achievements in the educational, methodological, research and other spheres in accordance with the Regulations on labour remuneration of the University staff.

The non-financial incentives include publication of information about personal research and professional achievements of teachers on the Faculty website. The teachers celebrating anniversaries are awarded with honorary diplomas of the University, the government of the Mordovia Republic and the Russian Federation.

The University developed the documents regulating the elections of the Faculty Dean (Institute Director) and Heads of Department, and the procedure of employing teachers. The latter is in compliance with the approved regulations and is reflected in the minutes of the meetings of the Department, Examination Board and Academic Council of the Faculty.

The criteria of employing teachers including those from foreign educational institutions, assignment to a position, promotion, if necessary, dismissing teachers having low professional competences are clear, transparent and objective. The University developed mechanisms and criteria for regular evaluation of teachers' competency by the management of the Department and the Faculty: holding open classes, analysis of reciprocal visiting of classes.

The journals of reciprocal visiting of classes are stored at the Departments. One of the criteria of evaluating teachers' competency is fulfilling an individual work plan of the teaching staff that includes educational, methodological, research, organizational, supervisory, public and other activities corresponding to the mission, goals and objectives of the University.

The survey for evaluating supervisors by the students is conducted every year. There are regulations on dismissing teachers having low professional competences but the Faculty did not have such a precedent as Heads of Departments are scrupulous about making an individual academic load of teachers.

The teachers' qualifications are confirmed by the certificates and reports on professional development.

Various forms of professional development allow the teaching staff to maintain a high level of their competency in different fields of expertise.

Achievements:

The Faculty has a leading position in research activities at the University: the work on 12 grants has been carried out and contract-based research for a total amount of more than 80 million rubles has been conducted; 17 process patents were granted.

The staff of the Department of Biotechnology, Bioengineering and Biochemistry are Skolkovo residents, members of the national and

international research organizations: Russian Society of Biotechnologists, Educational and Methodological Association for Biological and Biotechnological Education, European Biotechnology Thematic Network Association (EBTNA), Interregional Society of Microbiologists.

High professional levels (the academic degree holders rate is 85%) and the levels of publication activities of the teaching staff. Research achievements are used in the educational process.

The coursebook «Obschaia Biotekhnologiia» (General Biotechnology), 2nd edition, received the diploma at the VII Russian competition of the publications for HEIs «Universitetskaja Kniga – 2015» in the nomination «The Best The study Publication in Natural Sciences». quide «Biotekhnologiia Bakterialnykh Ekzopolisakharidov» (Biotechnology of Bacterial Exopolysaccharides) became the winner of the VII Privolzhskii competition of the publications for HEIs « Universitetskaia Kniga - 2019» in the nomination «The Best Study Guide in Medical Sciences».

Recommendations:

The programmes of academic mobility of the teaching staff should be developed on account of the profession and academic pursuits.

The teachers should have more possibilities of participating in the programmes of professional development and professional retraining in other Russian regions and in foreign countries.

Training courses for English and other foreign languages should be provided for teachers.

The Thesis Board in the specialty 03.01.06 Biotechnology, including Nanobiotechnologies should be established.

3.6 Standard 6. Learning resources and student support

Compliance with the standard: Full compliance

Table 6 - Criteria to Standard 6

N⁰	Subject of Evaluation			
1.	Provision of the study programme with material and technical recourses in accordance with the requirements of the curriculum (modern tools, equipment, computers, classrooms, laboratories)			
2.	Availability of up-to-date library and information resources including those for independent study and research work			
3.	Availability of infrastructure to ensure access to quality education to students with different opportunities and of different age, and to provide the development of social and educational component of the academic process			
4.	The system of feedback on the satisfaction with conditions and organization of the study process should be in place	А		
5.	Availability of accessible information about opportunities for student mobility and its support system	В		

Analysis of the educational programmes' compliance with the standard:

The equipment, computers, classrooms, laboratories fully correspond to the requirements of the modern educational process. There are 5 classrooms (from 100 to 25 seats), more than 30 laboratories (from 20 to 10 seats), 1 computer class (15 seats). Thus, the number of training facilities corresponds to the requirements and is sufficient for the educational process. In 2010-2016 the research laboratories were set up or improved for the total amount of more than 100 million rubles. The University has a long-term plan on improving material and technical resources; they are updated every year.

The materials of the University library are available for the students. The library stock is more than 2.5 million units (books and journals) in Russian, Mordovia and foreign languages. Automatisation of the library technologies is carried out on the basis of ILS MARC-SQL1.10 and the application «MegaWeb», ILS MegaPro.

The library website is a platform of providing a single access point to the electronic informational resources and the electronic catalogue (more than 365 thousand of bibliographic records). The targeted newsletters about the resources are sent.

The library is a member of the National Consortium of Russian Libraries (NEICON), Association of Regional Library Consortiums (ARBICON). It actively participates in the corporate projects: Interregional Analytic Description of Articles (MARS), Interlibrary Loan (ILL), Electronic Document Delivery (EDD).

The students and teachers have a free access to the stock of educational and methodological materials (curricula, working programmes of disciplines, programmes of practical training), research and educational publications of the teachers. The Panel concluded that the students are provided with all necessary educational and methodological materials for independent work.

All students have an access to personal accounts in the informational educational environment of the University, where they can communicate with the teachers and find educational and methodological materials.

The system of e-learning is actively developed at the University: the Centre for the Development of Distance Learning of Mordovia State University provides a free access to the University system of distance learning (Moodle platform). The rules and procedures of e-learning are reflected in the Regulations on e-learning and use of distance educational technologies at Mordovia State University.

The conditions for training of students of various ages are created at all levels. However, the academic building is not equipped for people with disabilities, while training of these people is regulated by the Regulations on training of handicapped persons and people with disabilities. The Panel also noticed that the hygiene and sanitary conditions of lavatories in the building of the Faculty of Biotechnology and Biology should be improved.

There are rooms for self study, but they may occasionally be not be available for being employed for other purposes (e.g. seminars).

Different University subdivisions are involved in collecting feedback from the students. One of the effective ways of collecting feedback is conducting survey of students followed by the improvement of the University activities with the account of the students' suggestions. Besides, there is an online reception office on the University website, where everyone can address to the Rector. In view of the above, the Panel confirms that the University has a feedback system on evaluation of the conditions and the educational process by the students.

The University regularly holds seminars on academic mobility; the information on terms and conditions is published on the website, as well as in the section «Competitions and Grants» and «International Foundations of Scholarships and Grants». Despite this fact, the student academic mobility is not sufficiently developed at the University.

Achievements:

The material and technical resources are of high level and correspond to the world standards. There are laboratories provided with modern equipment at the Faculty.

The University has a long-term plan on improvement of material and technical resources.

The library stock is more than 2.5 million units (books and journals) in Russian, Mordovia and foreign languages. The library is a member of the National Consortium of Russian Libraries (NEICON), Association of Regional Library Consortiums (ARBICON).

There is an access to 62 databases: 18 Russian and 42 international (SCOPUS, Web of Science, Nature, Springer, Cambridge University, Elesevier-Sciencedirect, Wiley, Oxford University, etc.).

The system of e-learning Moodle is used at the University.

The results of research (developments) are used in production.

Recommendations:

The academic building should correspond to the requirements necessary for training of people with disabilities.

The public should be informed about the academic mobility programmes and its support system with the help of various methods (website, meetings with students, information stands).

The workshops for learning a language with native speakers should be held.

3.7 Standard 7. Collection, analysis and use of information for managing the educational institution

Compliance with the standard: Full compliance

Table 7 - Criteria to Standard 7

N⁰	Subject of Evaluation		
1.	Availability and effectiveness of the system for collecting and monitoring information about the study programme		
2.	Participation of students and staff of the educational institution in collecting and analyzing information for managing the study programme		
3.	The educational institution should have in place a unified effective information system on the basis of modern information technologies for managing the study programme	A	

Analysis of the educational programmes' compliance with the standard:

The University carries out regular work on the monitoring of information about the educational programmes and evaluation of its effectiveness. The procedures of collection, analysis and further use of the information on management of the educational process at the University are clearly regulated and documented. The student achievements are documented in exam records, record books and in the system 1C: University.

The information on support services is published on the University website. The information on employability is published on the website of the Centre on Support of Graduates Employability. During the whole period of study every student has an individual unlimited access to the electronic informational and educational environment from any place that has an access to the Internet at the University and beyond.

The University has a complex of informational and analytical systems united in a single network. The Panel evaluated its effectiveness and use of information technologies in managing the educational programmes. The Moodle platform is used in the educational process. The issues of data safety and privacy policy should be observed, especially with respect for grading the individual performance of students.

Since 2010 the unified system of electronic document flow «Delo» has been used at the University.

The Programme of the University informatization for 2015-2020 is carried out. Based on the evidence, the Panel noted the unified information network at the University, its effectiveness, use of information technologies in managing the educational programmes.

Achievements:

The electronic informational environment functions at the University. The management of the educational process is carried out with the help of the system «1C: University».

The electronic informational environment contains the information related to all University activities.

The Moodle platform allows for cooperation of all participants of the educational process.

Recommendations:

The teachers should work on the development of electronic educational resources and own websites.

The possibilities of taking into account statistical data on the use of informational resources in the form of online courses should be enhanced.

Compliance with the standard: Full compliance

Table 8 - Criteria to Standard 8

N⁰	Subject of Evaluation		
1.	Effective use of the official website of the study programme for its quality enhancement		
2.	Publication of complete and accurate information on the study programme and its achievements on the official website of the educational institution and mass media	А	
3.	Publication of objective data on the employability of graduates	В	
4.	Integration in the environment, interaction of the educational institution with different professional associations and other organization including those from abroad	A	

Analysis of the educational programmes' compliance with the standard:

The University website contains information about the events aimed at improving quality of the educational programmes (conferences, workshops, open lectures, etc.). The official website of the educational institution is wellstructured and has an English version.

The information on the educational programmes, criteria of applicants' admission, expected learning outcomes, qualifications, teaching methods, evaluation, academic progress, research programmes and achievements is published on the website and is regularly renewed. The up-to-date information about the University and news are published in the University newspaper «Golos Mordovskogo Universiteta» (Voice of Mordovia University). The information about the University is also distributed through the STRBC «Mordovia» and is published in the newspapers «Izvestiia Mordovii», «Stolitca C», «Argumenty i Fakty. Povolzhskii Region», «Komsomolskaia Pravda. Povolzhskii Region», «Erzian Pravda», etc.

The Faculty of Biotechnology and Biology actively cooperates with the regional enterprises. The cooperation with different enterprises on graduates' employability is carried out by signing agreements on work placement, agreement of curricula, presentation of enterprises, career-guidance, participation of employers in the State Final Examination, excursions, etc. Besides, the University has the Centre on Support of Graduates Employability responsible for spreading information about graduates employability and support of graduates and employers. Every year meetings of graduates, round tables with stakeholders (students, HEI, employer), excursions to enterprises and organizations, trainings, business games and workshops of the Career Fair are held. The Panel, however, noted that the University website contains insufficient information on remarkable students, graduates and teachers, which can motivate students and teachers and improve University image.

The University cooperates with professional associations and other organizations, including foreign ones. Some teachers are members of national and international research communities. The University signed more than 20 agreements with schools, secondary vocational institutions, regional enterprises, more than 10 agreements with HEIs and institutions, and 1 agreement with a large corporation (State Research Institute of Biosynthesis of Albuminous Substances). A number of international cooperation agreements were also signed, including those in the sphere of biotechnology. In 2019 a BRICS grant was awarded together with Chinese and Indian partners.

Achievements:

The official website reflects all University activities and helps to get trustworthy and objective information in an effective way.

The University actively cooperates with regional subject-specific enterprises. The University signed more than 20 agreements with schools, secondary vocational institutions, regional enterprises, more than 10 agreements with HEIs and institutions, and 1 agreement with a large corporation (State Research Institute of Biosynthesis of Albuminous Substances).

In 2019 a BRICS grant was awarded together with Chinese and Indian partners.

More than 70% of the teachers are members of Russian and international research organizations.

The Faculty is a member of two technical platforms: «Bioenergetics» and «Biotech 2030».

The Centre for Support of Graduates Employability works at the University.

Recommendations:

The students should be informed about remarkable students, graduates and teachers of the Faculty and the University through the website and information stands as a way of promoting the educational programmes.

The University should address a proposal to employers on establishing corporate classrooms taking into account last achievements in biotechnologies (a specialised equipped classroom at the expenses of employers) with a possibility of using it in the educational process and for research activities.

3.9 Standard 9. On-going monitoring and periodic review of programmes

Compliance with the standard: Full compliance

Table 9 - Criteria to Standard 9

N⁰	Subject of Evaluation		
1.	Documented procedures of monitoring and periodic review of study programmes should be in place		
2.	Availability of a feedback mechanism for students, employers, branch ministries and departments (key stakeholders in employment) in the process of monitoring and periodic review of a study programme		
3.	Effectiveness of procedures for monitoring and periodic review of a study programme (enhancement of programmes)	А	

Analysis of the educational programmes' compliance with the standard:

The University has the regulated procedures of monitoring, periodical evaluation and review of the educational programmes. The curricula are

annually reviewed and approved by the Vice-Rector for Academic Affairs; the working programmes of disciplines and practical training are annually reviewed and approved by the Dean.

Following the results of the meetings with students, graduates and employers, the Panel noted that the University collects feedback from students, employers, subject-specific ministries and institutions (key partners on employability) when conducting monitoring and periodical review of the educational programmes. The main tools for collecting feedback are surveys of employers and cooperation of the Faculty with representatives of the labour market. Besides, the Panel noted that some disciplines of the curriculum are developed with the help of employers.

The educational programmes are reviewed by external experts, including those who are members of the State Attestation Commission. One of the areas of the Commission work is defining practical focus of the topics of graduation theses. The topics are annually improved in accordance with employers' requirements.

Achievements:

The University has the regulated procedures of monitoring, periodical evaluation and review of the educational programmes.

The surveys of students and employers, interviews and questionnaires are conducted, discussed and result in taking corrective actions.

Recommendations:

Employers should more directly be involved in adjustment of the content of the educational programmes.

The employers should be involved on a trial basis in evaluation of the results of interim attestation on the disciplines that include professional competences. Currently they are only involved in the final attestation.

3.10 Standard 10. Cyclical external quality assurance of study programmes

Compliance with the standard: Full compliance

Table 10 - Criteria to Standard 10

N⁰	Subject of Evaluation		
1.	Periodic review of a study programme		
2.	Availability of a corrective actions programme to follow up the results of external evaluation of study programmes		
3.	Consideration of the results of previous procedures of external evaluation when conducting subsequent external procedures	А	

Analysis of the educational programmes' compliance with the standard:

The Panel examined the documents and held meetings with representatives of the University subdivisions responsible for quality of the educational programmes and employers. In 2019 the University successfully passed the procedure of state accreditation of all educational programmes. Employers regularly participate in external review and evaluate professional competences of graduates as members of the State Attestation Commissions, they write reviews on the cluster of the educational programmes under accreditation. Successful employment of graduates and positive feedback from employers are the indicators of a positive external review of the programmes.

As a result of the meetings with the University administration, people responsible for education quality, it was noted that there is no need in taking corrective measures on the basis of the results of state accreditation. The University has the programme/plan of corrective actions on the basis of the results of external review of the educational programmes.

The results of previous external reviews are taken into account during the following external reviews. Recommendations of the State Attestation Commission, employers and students are used when preparing for the upcoming evaluation procedures and improving quality of the educational programmes.

Achievements:

The University participates in the procedures of external quality assurance in various forms: performance monitoring, external audit of the quality management system, independent evaluation of the educational programmes in terms of public accreditation.

In 2019 the University successfully passed the procedure of state accreditation.

The University regularly participates in the top-rated evaluation systems and achieves high results. The University ranks 207th among 350 universities of Europe and Central Asia in the ranking QS Emerging in Europe and Central Asia 2020.

Recommendations:

It is recommended that the educational institution should continue to participate in the procedure of independent evaluation in order to improve quality of the educational programmes and create a positive image of the University.

4. **RECOMMENDATIONS FOR IMPROVEMENT**

Thus, based on the analyses of the presented documents, meetings and interviews, conducted during the site-visit, with the purpose of improving the quality of delivering the educational programmes under accreditation the Review Panel recommends that:

- 1. The University should enhance cooperation with the regional subjectspecific ministries and institutions.
- 2. When approving the subject-specific standards, it is recommended to review the educational programmes on account of these standards. The University should continue using the descriptors of the national qualification framework when further delivering the educational programmes at Bachelor and Master levels. The possibilities of adjusting the educational programmes should be discussed, especially with cheese-making employers.
- 3. The University should introduce two new courses in the Bachelor programme: the discipline on the legal framework of biotechnological processes; a course on standardization and certification (QMS).
- 4. Individual learning paths should be made available for talented students in order to allow them to effectively learn the educational programme, do research and work.
- 5. The student mobility should be enhanced; the conditions for improving their language proficiency in English, and if desired in other languages should be improved (introducing additional courses of the English and other languages, holding round tables, tea parties with English-speaking students, etc.).
- 6. The programmes of academic mobility of the teaching staff should be developed on account of the profession and academic pursuits.
- 7. The teachers should have more possibilities of participating in the programmes of professional development and professional retraining in other Russian regions and in foreign countries.
- 8. The Thesis Board in the specialty 03.01.06 Biotechnology, including Nanobiotechnologies should be established.
- 9. The public should be informed about the academic mobility programmes and its support system with the help of various methods (website, meetings with students, information stands).
- 10. The students and staff members should be informed about remarkable students, graduates and teachers of the Faculty and the University through the website and information stands.
- 11. The University should address a proposal to employers on establishing corporate classrooms taking into account last achievements in biotechnologies (a specialised equipped classroom at the expenses of employers) with a possibility of using it in the educational process and for research activities.
- 12. Employers should more directly be involved on a trial basis in evaluation of the results of interim attestation on the disciplines that include professional competences.

5. CONCLUSION

Based on the self-evaluation report analysis, documents and data submitted the External Review Panel has come to the conclusion that the cluster of educational programmes «Biotechnology» (19.03.01, 19.04.01) **fully** complies with the standards and criteria of public accreditation of the National Centre for Public Accreditation.

The Panel recommends that the National Accreditation Board accredit the cluster of educational programmes «Biotechnology» (19.03.01, 19.04.01) delivered by National Research Ogarev Mordovia State University for the period of **six** years.

ANNEX A

SCHEDULE OF THE SITE VISIT OF THE EXTERNAL REVIEW PANEL

Time	Activity	Participants	Venue			
	December 17, Tuesday					
8.00	Transfer from the hotel "Sarans 68, Bolshevistskaia Str.	k" to the University,				
8.30 — 10.00	First meeting of the External Review Panel	ERP, NCPA coordinator, interpreter	Building 1, 14 th floor, Room 1404, 68, Bolshevistskaia Str.			
10.00 — 11.00	Meeting of the ERP with the University administration and people responsible for accreditation	Rector, Vice-Rectors, people responsible for accreditation, ERP	Building 1, 13 th floor, Conference Hall, Room 1302, 68, Bolshevistskaia Str.			
11.00 — 12.00	Tour of the University (visiting museum, library, Centre of Distance Learning, Centre of New Information Technologies, etc.)	ERP	Buildings 1,2, 68, Bolshevistskaia Str.			
12.00 — 13.30	Lunch		Dining Room, 68в, Bolshevistskaia Str.			
13.30 — 14.00	Transfer to Building 14		Building 14, 26/6, Ulianova Str.			
14.00 — 14.30	Tour of the Faculty (visiting classrooms, laboratories, etc.)	ERP, Faculty representative, NCPA coordinator	classrooms, Building 14, 26/6, Ulianova Str.			
14.30 — 15.00	Internal meeting of the Panel	ERP, NCPA coordinator	Building 14, Room 315, 26/6, Ulianova Str.			
15.00 — 16.30	Meeting with Dean, Head of Department, Manager for Quality	Dean, Deputy Deans, Heads of Departments, Manager for Quality, ERP	Building 14, Conference Hall, Room 317, 26/6, Ulianova Str.			
16.30 — 18.00	Internal meeting of the Panel, work with documents	ERP, NCPA coordinator	Building 14, Room 315, 26/6, Ulianova Str.			
18.00 — 19.00	Meeting with graduates	Graduates, ERP	Building 14, Conference Hall, Room 317, 26/6, Ulianova Str.			
19.00 — 19.15	Internal meeting of the Panel	ERP	Building 14, Room 315, 26/6, Ulianova Str.			

Time	Activity	Participants	Venue				
December 18, Wednesday							
9.30	9.30 Transfer from the hotel to Building 14						
10.00 — 11.00	Meeting with teachers	Teachers, ERP	Building 14, Conference Hall, Room 317, 26/6, Ulianova Str.				
11.00 — 11.30	Internal meeting of the Panel	ERP	Building 14, Room 315, 26/6, Ulianova Str.				
11.30 — 12.30	Attending classes	ERP	Building 14, 26/6, Ulianova Str.				
12.30 — 13.30	Lunch		Dining Room, 68в, Bolshevistskaia Str.				
13.30 — 14.30	13.30 Meeting with students Students, ERP Hall, Room		Building 14, Conference Hall, Room 317, 26/6, Ulianova Str.				
14.30 — 18.00	Internal meeting of the Panel , work with documents	ERP	Building 14, Room 315, 26/6, Ulianova Str.				
18.00 — 19.00	Meeting with representatives of professional community	Employers, ERP	Building 14, Conference Hall, Room 317, 26/6, Ulianova Str.				
19.00 — 19.15	Internal meeting of the Panel	ERP	Building 14, Room 315, 26/6, Ulianova Str.				
	Decembe	er 19, Thursday					
8.45	Transfer from the hotel "Sarans 68, Bolshevistskaia Str.	k" to the University,					
9.00 — 12.00	I recults of the site visit I HDD		Building 1, 14 th floor, Room 1404, 68, Bolshevistskaia Str.				
12.00 — 13.00	,		Building 1, 13 th floor, Conference Hall, Room 1302, 68, Bolshevistskaia Str.				
13.00 — 14.00	Lunch		Dining Room, 68в, Bolshevistskaia Str.				
	Departure						

ANNEX Б

PARTICIPANTS OF THE MEETINGS

Administration of the HEI, persons responsible for accreditation:

Nº	Name	Position	Contact Information
1.	Sergei Vdovin	Rector, Professor, Department of Management	rector@mrsu.ru +7 (8342) 244888
2.	Alina Maslova	Vice-Rector for Academic Affairs, Management Representative for Quality	omk-mrsu@yandex.ru +7 (8342) 222965, 482392
3.	Petr Senin	Vice-Rector for Research	vice-rector- innov@adm.mrsu.ru +7 (8342) 233260
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6.	Konstantin Leschankin	Vice-Rector for Informatization and International Cooperation	vice-rector- inf@adm.mrsu.ru +7 (8342) 222967
7.	Elena Zavariukhina	Head of the Educational and Methodological Department	dep- study@adm.mrsu.ru +7 (8342) 24-49-34
8.	Irina Mikhalkovich	Director of the Centre for Support of Graduates Employability	csz_mrsu@mail.ru +7 (8342) 222973
9.	Olga Ageeva	Head of the Department for Training of Highly-Qualified Staff	ageeva200981@mail.ru +7 (8342) 270725; 477470

Teachers:

N⁰	Name	Position	Contact Information
1.	Davud Ali-Ogly Kadimaliev	Professor, Department of Biotechnology, Bioengineering and Biochemistry	cadimded@yandex.ru +79603367398
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4.	Natalia Gromova	Associate Professor, Department of Biotechnology, Bioengineering and Biochemistry	nataly_grom@mail.ru +79030514009
5.	Nikolai Novokuptcev	Teacher, Department of Biotechnology, Bioengineering and Biochemistry	nikolay.novokuptsev@yandex.ru +79631473990
6.	Sergei Piniaev	Teacher, Department of Biotechnology, Bioengineering and Biochemistry	komrad.pinyaev2009@yandex.ru 89276406070
7.	Natalia Nazarova	Teacher, Department of Biotechnology, Bioengineering and Biochemistry	natasha-sapunva@rambler.ru 89603310024

Students:

Nº	Name	Field of Study	Year	Contact Information
1.	Anastasia Tarakanova	Biotechnology (Master's Degree)	1	tarakanova.anastasiya2017@y andex.ru 89376728284
2.	Anna Deviataeva	Biotechnology (Master's Degree)	1	ania.devyatava@yandex.ru 89610993074
3.	Maria Milina	Biotechnology (Master's Degree)	1	mari.milina@list.ru 89271844371
4.	Oksana Khramova	Biotechnology (Master's Degree)	1	ok.hramova@yandex.ru 89279785531
5.	Aleksandra Pianzina	Biotechnology (Bachelor's Degree)	4	PyanzinaSSS@yandex.ru 89276437267
6.	Ekaterina Upyrkina	Biotechnology (Bachelor's Degree)	4	katyusha.hazova@yandex.ru 89276437267
7.	Ekaterina Kolistratova	Biotechnology (Bachelor's Degree)	2	kolistratova3265@gmail.com 89510576734
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9.	Ksenia Malafeeva	Biotechnology (Bachelor's Degree)	4	ksenya.malafeeva@yandex.ru 89875674514
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11.	Tatiana Kuznetcova	Biotechnology (Master's Degree)	2	tatyanatatyna96@yandex.ru 89510582874
12.	Evgenii Balakin	Biotechnology (Master's Degree)	2	ya.balaki2014@yandex.ru 89530312087
13.	Ekataerina Kniazkina	Biotechnology (Bachelor's Degree)	3	caterina.knyazkina@yandex.ru 89271945315
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15.	Natalia Kutuzova	Biotechnology (Bachelor's Degree)	1	natalyakutt@icloud.com 89376783435

Dean, Deputy Deans, Head of Department, Manager for Quality:

N⁰	Name	Position	Contact Information
1.	Viktor Revin	Dean of the Faculty of Biotechnology and Biology, Head of the Department of Biotechnology, Bioengineering and Biochemistry	fac-bio@adm.mrsu.ru 32-25-23
2.	Tatiana Kolmykova	Deputy Dean for Academic Affairs	tskolmykova@yandex.ru 89276412319
3.	Arkadii Deviatkin	Deputy Dean for Research and Informatization	arkdev@yandex.ru 89063781142
4.	Marina Tairova	Deputy Dean for Extra-Curricular Activities	marina_rt@mail.ru 89625951580
5.	Nelli Atykian	Manager for Quality, leading researcher, Head of the Laboratory of Nanotechnology, Biotechnological Centre	kistig2@yandex.ru +7 (8342) 324554

Representatives of employers:

Nº	Name	Position	Contact Information
1.	Maksim Yudanov	Director, LLC Biosphera	89603305511
2.	Marina Gladysheva	Acting Chief Technologist, canning factory "Saranskii"	89271881938
3.	Aleksei Plokhov	Chief Technologist, LLC MordovAlkoprom	morspirt@yandex.ru 89272722529
4.	Viacheslav Pronin	Executive Director, LLC SanInbevTrade	89155189894
5.	Svetlana Kazerkina	Deputy Director General, cheese factory "Sarmich"	89272764209
6.	Vera Osipova	Director General, "Khlebozavod"	info@hlebrm.ru +7(8342) 32-22-64
7.	Andrei Kabanov	Director, Distillery "Kemlianskii"	+7 (83433) 3-00-85
8.	Aleksei Kluichnikov	Foreman of the section №9, Deputy Executive Director, "Biokhimik"	BIOHIMIC@BIOHIMIC.RU +7 (8342) 38-03-68
9.	Nikolai Kireev	Director General, cheese factory "Ichalkovskii"	maslosir@mts-nn.ru 8(83197)5-23-44

Graduates:

Nº	Name	Place of Work	Position	Contact Information
1.	Elena Savina	Branch of the Centre of Laboratory Analysis and Technical Metrology, Mordovia Republic	Head of the section	elena.sawi@yandex.ru 89279777425
2.	Yaroslav Kudriashov	"SAN InBev", Saransk branch	Operator of the Brewing Production Facility	89879956335
3.	Yulia Ustina	Meat-processing plant "Saranskii"	Head of the Department of Systematization, Business Processes	89279760203
4.	Irina Kaletkina	"Biokhimik"	Engineer-Operator	89375175728
5.	Margarita Fomkina	"Biokhimik"	Technologist	89179993592

ANNEX B

THE SCALE OF ASSESSMENT PARAMETERS OF STUDY PROGRAMMES

		Assessment of the study programme			
Nº	Standards	Full compliance	Substantial compliance	Partial compliance (needs improvement)	Non-compliance
1.	Policy (goals, development strategy) and quality assurance procedures of a study programme	*			
2.	Design and approval of programmes	*			
3.	Student-centred learning, teaching and assessment	*			
4.	Student admission, support of academic achievements and graduation	*			
5.	Teaching staff	*			
6.	Learning resources and student support	*			
7.	Collection, analysis and use of information for managing the study programme	*			
8.	Public information	*			
9.	On-going monitoring and periodic review of programmes	*			
10.	Cyclical external quality assurance of study programmes	*			